

# Water and salt

## the body's life force

### Salt: Life depends on it

Salt is an essential nutrient. Without it you cannot live. Humans are made up of between 50 and 75% water and of between 14 g salt (baby) and 250 g salt (male adult). It is via these fluids that crucial bodily functions take place such as metabolism, transportation of nutrients and the removal of substances no longer required by the body. The body cannot manufacture salt; we are therefore reliant on food to ensure a necessary intake. A healthy body processes just the amount of salt it needs and the kidneys dispose of any surplus.

### Salt: Sodium and chloride ions (NaCl)

Salt consists of sodium and chloride ions. Sodium enables the transmission of nerve impulses around the body. As an electrolyte, it regulates the electrical charges moving in and out of the cells in the body. It controls your taste, smell and tactile processes. The presence of sodium ions is essential for the contraction of muscles, including that largest and most important muscle, the heart. It is fundamental to the operation of signals to and from the brain. Without sufficient sodium, your senses would be dulled and your nerves would not function.

Chloride, too, is essential to good health and is a fundamental element in the digestion process. It preserves acid-base balance in the body. It aids potassium absorption. It supplies the essence of

hydrochloric acid in the gastric juices used in the stomach to help us to break down and digest the food we eat and control the level of bacteria present in the stomach. It enhances the ability of the blood to carry carbon dioxide from respiring tissues to the lungs.

### Salt/water ratio

Our metabolism controls how salt is processed by the body. It regulates the salt/water ratio via the kidneys which in turn are controlled by a finely tuned hormone system. Everyone has experienced how this works in their own body; if there is a salt deficiency the metabolism reacts with a noticeable salt appetite and we develop a hunger for salty foods. In contrast if there is an excess of salt in the body we become very thirsty. The body thus ensures that more fluid is consumed so that the excess salt can be easily excreted via the kidneys.

### Conclusion

The human body's finely tuned system means we are able to easily manage "too much" salt as well "too little" salt. Therefore, for healthy people, there is no need to reduce salt intake.

(See our other related factsheets: Salt & Blood Pressure, Salt & Pregnancy, Salt & The Elderly, Salt & Food Production)